

REMARKS/ARGUMENTS

The Applicants originally submitted Claims 1-20 in the application. In a previous response, the Applicants amended Claims 1, 8 and 15. In the present response, the Applicants have not amended, added or canceled any claims. Accordingly, Claims 1-20 are currently pending in the application.

I. Rejection of Claims 1, 4-6 and 8-13 under 35 U.S.C. §103

The Examiner has rejected Claims 1, 4-6 and 8-13 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,141,390 to Cova in view of U.S. Patent No. 6,275,685 to Wessel, *et al.* The Applicants respectfully disagree.

Cova is directed to linear transmitters using predistortion. (*See* column 1, lines 19-20.) As recognized by the Examiner, Cova does not teach or suggest a WCDMA transceiver as recited in independent Claims 1 and 8. To cure this deficiency, the Examiner cites Wessel. (*See* Final Rejection, pages 2-3.) Wessel is directed to high power linear amplifiers that use digital predistortion. (*See* column 1, lines 4-6.) Neither Cova nor Wessel, however, teach or suggest reducing distortion in an output of a WCDMA transceiver including employing a receive chain of the WCDMA transceiver during a training mode to provide a digital compensation signal that is a function of an output of a transmit chain of the WCDMA transceiver as recited in independent Claims 1 and 8.

Cova discloses a linear transmitter 400 that employs a predistortion system. (*See* column 3, lines 58-60, column 4, lines 35-37 and Figure 4.) The predistortion system includes a trainer subsystem (represented as block 605 in Figure 6) coupled to the transmitter 400. (*See* Figures 4 and

6.) The trainer subsystem 605, however, is not a receive train of a transceiver. On the contrary, the trainer subsystem 605 is a dedicated feedback loop of the transmitter 400 that receives output signals from the power amplifier and performs the appropriate down conversions thereon and provides the converted output signal to the trainer 431. (See column 4, lines 50-54; column 9, lines 49-52; column 18, line 62 to column 19, line 40 for another embodiment of a dedicated feedback loop; and Figures 4, 6 and 15.) As discussed in the present specification, a dedicated feedback loop can be used to track changes in a power amplifier but this adds to the overall complexity of a predistortion system. (See specification, paragraph 26, page 11.) Unlike the dedicated feedback loop of Cova, the presently claimed invention advantageously employs a receive train of a transceiver. The Applicants do not find any teaching or suggestion in Cova that the trainer subsystem is a receive chain of a transceiver.

Wessel does not cure this deficiency of Cova. Wessel discloses a circuit for predistorting a signal. (See column 2, lines 24-27 and Figure 4.) As in Cova, however, the predistortion circuit is a feedback circuit of a transmitter. (See Abstract and Figures 4 and 7.) Wessel makes no teaching or suggestion that the predistortion circuit is a receive chain of a transceiver. Therefore, neither Cova nor Wessel, individually or in combination, teach or suggest employing a receive chain of a WCDMA transceiver as recited in independent Claims 1 and 8.

Thus, Cova or Wessel, individually or in combination, also do not teach or suggest employing a receive chain of a WCDMA transceiver during a training mode as recited in independent Claims 1 and 8. The Examiner does not assert, nor do the Applicants find, that Wessel teaches or suggest a training mode as presented in the present invention. The Examiner explicitly asserts that Cova discloses a training mode since Cova provides trainer signals to a

predistorter. (See Final Examiner's Rejection, page 6.) Cova, however, specifically discloses the trainer is employed during normal transmission (showtime) by the transmitter 400 (transmission mode). (See column 7, lines 8-14.) Cova, therefore, does provide trainer signals but does not provide the trainer signals during a training mode. As stated in the previous response, the antenna is disconnected from a transmit chain during the training mode. (See original specification, paragraph 32.) Cova clearly provides trainer signals while the antenna is connected to the transmit chain. Accordingly, even if assuming Cova and Wessel teach or suggest employing a receive chain of a WCDMA transceiver, the cited combination of Cova and Wessel does not teach or suggest employing a receive chain of a WCDMA transceiver during a training mode.

Since Cova and Wessel, individually or in combination, fail to teach or suggest each element of independent Claims 1 and 8, the combination of Cova and Wessel does not provide a *prima facie* case of obviousness of Claims 1 and 8 and Claims dependent thereon. Accordingly, the Applicants respectfully request the Examiner to withdraw the §103(a) rejection of Claims 1, 4-6 and 8-13 and allow issuance thereof.

II. Rejection of Claims 2, 3, 7 and 14 under 35 U.S.C. §103

The Examiner has rejected Claims 2, 3, 7 and 14 under 35 U.S.C. §103(a) as being unpatentable over Cova and Wessel and in further view of either U.S. Patent No. 6,373,902 to Park, *et al.* (Claim 2), U.S. Patent No. 6,240,144 to Ha (Claim 3) or U.S. Patent No. 6,288,610 to Miyashita (Claims 7 and 14). The Applicants respectfully disagree.

The Applicants do not find where Park, Ha or Miyashita teach or suggest employing a receive chain of a WCDMA transceiver during a training mode to provide a digital compensation

signal that is a function of an output of a transmit chain as recited in independent Claims 1 and 8.

Furthermore, neither Park, Ha nor Miyashita has been cited to cure the above deficiency of Cova and Wessel but to teach the subject matter of the above designated dependent Claims 2-3, 7 and 14. Accordingly, the cited combinations of Cova, Wessel, Park, Ha and Miyashita fail to teach or suggest each element of independent Claims 1 and 8, and do not provide a *prima facie* case of obviousness of Claims 2-3, 7 and 14 which depend thereon. The Applicants, therefore, respectfully request the Examiner to withdraw the §103(a) rejection of Claims 2-3, 7 and 14 and allow issuance thereof.

III. Rejection of Claims 15-20 under 35 U.S.C. §103

The Examiner has rejected Claims 15-20 under 35 U.S.C. §103(a) as being unpatentable over Cova and Wessel in further view of Park and Ha. The Applicants respectfully disagree.

As discussed above regarding independent Claims 1 and 8, the Applicants do not find in Cova, Wessel, Park or Ha, a teaching or suggestion of employing a receive chain of a WCDMA transceiver during a training mode to provide a digital compensation signal that is a function of an output of a transmit chain as also recited in independent Claim 15. Accordingly, the cited combination of Cova, Wessel, Park and Ha fails to teach or suggest each element of independent Claim 15, and does not provide a *prima facie* case of obviousness of Claim 15 and Claims 16-20 that depend thereon. The Applicants, therefore, respectfully request the Examiner to withdraw the §103(a) rejection of Claims 15-20 and allow issuance thereof.

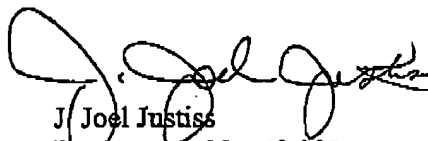
IV. Conclusion

In view of the foregoing remarks, the Applicant now sees all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicits a Notice of Allowance for Claims 1-20.

The Applicant requests the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application. The Commissioner is hereby authorized to charge any fees, credits or overpayments to Deposit Account 08-2395.

Respectfully submitted,

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